

REMARKS

Claims 1, 2, 4-6, and 8 are pending in this application. By this Amendment, claim 1 is amended, and claim 7 is canceled. Claim 8 is withdrawn from consideration as being directed to a non-elected invention.

Entry of the amendments is proper under 37 CFR §1.116 because the amendments place the application in condition for allowance and do not raise any new issue requiring further search and/or consideration because claim 7 depended from claim 1.

I. Rejection of Claims under 35 U.S.C. §102

A. Claims 1-7 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sotomura (US 2003/0091889) in view of Cooper (USPN 5,316,990). However, no claim 3 was pending in this application at the time of the July 9, 2010 Office Action.

The rejection of claim 7 is respectfully traversed and to expedite prosecution, claim 7 is canceled and independent claim 1 is amended to include all the limitations of claim 7.

Thus, independent claim 1 includes a precursor layer forming step of forming the precursor layer by a coating method. This embodiment corresponds to Example 3 of Applicants' application.

In case of Example 3, in which the precursor layer is formed by the *coating method*, it is possible to obtain an excellent oxygen reduction current density of no less than 6 times that of Example 1 in which a precursor layer is formed by vapor deposition. On the other hand Sotomura and Cooper do NOT disclose a method for forming the precursor layer by the coating method and then carrying out the potential sweeping on this precursor layer.

In the manufacturing method described in Applicants' application, a cathode is prepared by the first step for forming the precursor layer by the coating method (precursor layer forming step) and the second step for forming the catalyst layer by providing a potential

to the precursor layer by potential sweeping (a potential providing step), and thus, the above-described excellent effect is expressed.

A potential providing step, delineated in claim 1, is a step for providing an excellent property to a catalyst layer, NOT a step for forming the layer itself. Sotomura uses a potential sweep for forming a layer itself and such technical concept is substantially different from that delineated in claim 1. The potential sweep described in Sotomura is merely one of the means to form the catalyst layer itself. Furthermore, Sotomura does not disclose a concept of combining the method for forming a layer by coating and a method for forming a layer by potential sweeping, which are both means for forming a layer. Because a concept of combining the method for forming a layer by coating and a method for forming a layer by potential sweeping is not disclosed in Sotomura, a person of ordinary skill in the art would not arrive at such combining concept, or find such combining concept obvious in view of what is disclosed in Sotomura.

Cooper also does not disclose a method for forming a precursor by the coating method and then conducting a potential sweep to the precursor, nor the effect that will be achieved by such method. Therefore, the invention delineated in claim 1 is not disclosed in, or rendered obvious by Sotomura and Cooper, considered alone or in combination. Accordingly, claim 1 is patentable over Sotomura and Cooper.

Because claims 2 and 4-6 depend directly or indirectly from claim 1, they are patentable over Sotomura and Cooper for at least the reason(s) discussed above, as well as for the additional features they recite. Therefore, reconsideration of the rejection and allowance of claims 1, 2, and 4-6 are respectfully solicited.

II. Rejoinder


If independent claim 1 is allowed, claim 8 will refer to an allowed claim. In such case, withdrawal of the restriction requirement as to claim 8, as well as its allowance are respectfully solicited (see MPEP § 821.04 Rejoinder).

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,


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